

IN THE UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF OKLAHOMA

W. A. DREW EDMONDSON, in his)
capacity as ATTORNEY GENERAL)
OF THE STATE OF OKLAHOMA and)
OKLAHOMA SECRETARY OF THE)
ENVIRONMENT C. MILES TOLBERT,)
in his capacity as the)
TRUSTEE FOR NATURAL RESOURCES)
FOR THE STATE OF OKLAHOMA,)

Plaintiff,)

vs.)

4:05-CV-00329-TCK-SAJ

TYSON FOODS, INC., et al,)

Defendants.)

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VOLUME I OF THE VIDEOTAPED
DEPOSITION OF ROGER OLSEN, PhD, produced as a
witness on behalf of the Defendants in the above
styled and numbered cause, taken on the 10th day of
September, 2008, in the City of Tulsa, County of
Tulsa, State of Oklahoma, before me, Lisa A.
Steinmeyer, a Certified Shorthand Reporter, duly
certified under and by virtue of the laws of the
State of Oklahoma.

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1 from Dr. Harwood?

2 A Yes.

3 Q Okay, and Dr. Harwood is not a CDM employee;
4 correct?

5 A That's right. 09:26AM

6 Q She's another expert retained by Motley Rice?

7 A That's correct.

8 Q Okay. Section 6.11, Chemical and Bacterial
9 Signatures Using PCA Techniques, who authored
10 Section 6.11, first draft? 09:26AM

11 A Rick Chappell and myself, we divided specific
12 sections on that. He wrote some and I wrote some.

13 Q Okay, and who is Rick Chappell?

14 A He's a consultant at CDM.

15 Q He's not a W-2 employee? 09:27AM

16 A No, no longer. He was for many years.

17 Q Who does he work for now?

18 A He has his own company.

19 Q What's the name of that company?

20 A Environmental something something. Sorry. I 09:27AM
21 don't know the exact name of that.

22 Q Where is Mr. Cox physically located, if you
23 know?

24 A Chappell.

25 Q I'm sorry, Mr. Chappell. 09:27AM

1 A He's in Denver.

2 Q How long ago did Mr. Chappell leave the employ
3 of CDM?

4 A Oh, that's a good question. Probably three to
5 four years ago.

09:27AM

6 Q And in terms of compensation, I assume Mr.
7 Chappell has been compensated for his work; correct?

8 A Yes.

9 Q Okay. Who was responsible for his
10 compensation?

09:28AM

11 A Motley Rice. He was a subcontractor, which --
12 so his invoice would appear as a subcontractor on
13 our invoices.

14 Q He would bill CDM and CDM would bill Motley
15 Rice?

09:28AM

16 A Yes. So when I said Motley Rice, it's -- he
17 doesn't bill Motley Rice or work for them directly.
18 He works for us. He's on our payroll or our
19 invoices -- not on the payroll but our invoices.

20 Q What particular parts, if you can tell me, did
21 Mr. Chappell draft in Section 6.11?

09:28AM

22 A We'd have to go through that individually. If
23 you want to do that, we can do that now.

24 Q Can we do it quickly?

25 A Well, there's --

09:28AM

1 Q Let's go there. We'll see how long it takes.

2 I believe it begins on Page 632, Dr. Olsen.

3 A Yes, sir.

4 Q Okay. Run me through there and tell me which

5 portions you wrote versus which portions -- 09:29AM

6 A I wrote the introduction.

7 Q Okay. 6.11-1?

8 A I wrote 6.11 dash -- 6.11.2, Steps.

9 Q Steps of PCA?

10 A Right. Well, the first part of it, and then 09:29AM

11 he -- I actually wrote the first step but I was

12 pulling from various pieces he gave me. Like Step

13 6, he wrote essentially all of that and I pulled it

14 in and put it in the first shot at this whole

15 section. So that's describing the databases and 09:30AM

16 everything he wrote.

17 Q Let me ask this question while we're on it,

18 Dr. Olsen.

19 A Sure.

20 Q The source material for the steps of the PCA 09:30AM

21 process came from Dr. -- or from Mr. Chappell; is

22 that right?

23 A No.

24 Q Did I not?

25 A No.

1 Q I thought that's what you said.

2 A No.

3 Q Keep going.

4 A I wrote Step 8, and I'm going through this
5 pretty quick. He wrote Step 9. I pulled through 09:30AM
6 parts of Step 10. We both wrote parts of Step 11.
7 I wrote Step 12. I wrote Step 13. We wrote Step 14
8 together, and I wrote Step 15.

9 Q Go back to Page 6-61 for a moment. There's a
10 section that kind of appeared in the middle of the 09:32AM
11 steps and I want to ask you about it.

12 A Sure.

13 Q Entitled Evaluation of Potential Impact of
14 Cattle Manure.

15 A Yes. 09:32AM

16 Q Who authored the first draft of that section?

17 A I did.

18 Q Okay.

19 A And just to finish this off, 6.12 I was the
20 primary author on. 09:32AM

21 Q Thank you. Dr. Olsen, since preparing this
22 report, has CDM undertaken any work in connection
23 with this case other than producing your errata,
24 producing your considered materials and preparing
25 for this deposition? 09:33AM

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VOLUME II OF THE VIDEOTAPED
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September, 2008, in the City of Tulsa, County of
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Steinmeyer, a Certified Shorthand Reporter, duly
certified under and by virtue of the laws of the
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I N D E X

W I T N E S S

P A G E

ROGER OLSEN, PhD

Cont. Direct Examination by Mr. George 300

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Signature Page 577

Reporter's Certificate 578

1 (Whereupon, the deposition began at
2 8:32 a.m.)

3 VIDEOGRAPHER: We are now on the Record for
4 Volume II of the deposition of Roger Olsen. Today
5 is September 11th, 2008. The time is 8:32 a.m. 08:32AM
6 Would counsel please identify themselves for the
7 Record?

8 MR. PAGE: David Page representing the
9 State of Oklahoma.

10 MR. GEORGE: Robert George representing the 08:32AM
11 Tyson defendants.

12 MS. SOUTHERLAND: Leslie Southerland for
13 Cargill.

14 VIDEOGRAPHER: Thank you. The witness may
15 be -- may continue.

16 ROGER OLSEN, PhD
17 having first been duly sworn to testify the truth,
18 the whole truth and nothing but the truth, testified
19 as follows:

20 CONTINUED DIRECT EXAMINATION

21 BY MR. GEORGE:

22 Q Dr. Olsen, good morning. Good to see you
23 again today. Dr. Olsen, who is Rick Chappell -- I'm
24 sorry. Strike that. What role did Rick Chappell
25 have in the PCA work that underlies the opinions 08:32AM

1 that you've expressed in your expert report?

2 A He had the expertise in the programs to run
3 the statistical analysis. I worked with him and
4 directed his work to actually do the statistical
5 analysis. 08:33AM

6 Q Mr. Chappell actually ran the Sysstat software
7 that computed the Principal Component 1 and 2 scores
8 that you interpreted; is that right?

9 A That's correct.

10 Q Okay. Did Mr. Chappell run all of the PCA 08:33AM
11 analysis that you have referred to or consulted in
12 connection with your work in this case?

13 MR. PAGE: Object to the form.

14 A He did all the runs in this that are produced
15 and that were done for my expert report. 08:33AM

16 Q Okay. Did Mr. Chappell -- I'm sorry. Strike
17 that. Were there any prior runs that are not
18 referenced in your report or subsequent runs of the
19 principal component analysis that you yourself
20 completed? 08:34AM

21 A Yes. I did some last year.

22 Q Okay.

23 A It was -- we talked about in the preliminary
24 injunction hearing and, I mean, in the -- in my
25 deposition at that time. 08:34AM

1 principal component analysis that we did and talked
2 about -- actually published a paper on it as a
3 result of that. So that was one case. I'm trying
4 to think of other cases. Most other cases have not
5 been related to expert work. There may have been
6 some that I'm forgetting.

08:39AM

7 Q Let me try to simplify it for you, Dr. Olsen.
8 Have you to your knowledge or recollection ever been
9 permitted to explain principal component analysis
10 and how you can identify sources from principal
11 component analysis to a jury?

08:39AM

12 A No.

13 Q You referenced a paper that you wrote. Were
14 you the only author on that paper?

15 A I think a person at the Bureau of Mines and a
16 CDM person were authors on that.

08:39AM

17 Q Who were they? If I'm looking for this paper,
18 what three authors should I look for?

19 A I think it was John Eisenbeis. I think I was
20 the principal author, John Eisenbeis, and I'm trying
21 to remember the Bureau of Mines guy. I think it was
22 Gemperline.

08:40AM

23 Q And in what publication did this paper appear?

24 A It was in the proceedings of conference.

25 Q Well, proceedings in what conference?

08:40AM

1 A I'd have to look that up.

2 Q Was this a peer-reviewed publication?

3 A No.

4 Q Dr. Olsen, have you ever authored a
5 peer-reviewed publication describing the results of
6 a principal component analysis and identifying a
7 source of contamination based upon those results?

08:40AM

8 A No.

9 Q Are you familiar with the peer review process
10 that occurs in connection with publication?

08:41AM

11 A It's different with every journal.

12 Q You understand the idea is to have scientific
13 work reviewed by other competent scientists, who
14 aren't personally involved in the project; as a
15 general matter, you agree with that as a definition
16 for peer review?

08:41AM

17 A Well, you've just stated it yourself. So
18 depends on, you know, the journal and -- but that's
19 overall the purpose of it.

20 Q Okay. With that working definition, Dr.
21 Olsen, have you had your work, your principal
22 component analysis and your interpretation of those
23 results in terms of source peer reviewed in this
24 case?

08:41AM

25 A For publication?

08:41AM

1 Q Peer reviewed by anyone who -- any scientist
2 who is not retained by the plaintiffs in this case.

3 A Well, everything that we've done and all the
4 reviews that we've had other people do besides
5 myself and Dr. Chappell have been by people retained 08:42AM
6 by the plaintiffs. So there's no other person,
7 besides your experts, that have not been retained by
8 the State of Oklahoma for this case.

9 Q Just to clear it up and make sure our Record
10 is clear, Dr. Olsen, you have not had your principal 08:42AM
11 component analysis peer reviewed by scientists
12 outside of this litigation; is that right?

13 A That's correct.

14 Q You started on this line of questions when I
15 was asking you about Rick Chappell. Other than 08:42AM
16 physically running the Sysstat program, what other
17 services or support did Dr. Chappell or Mr. Chappell
18 provide?

19 A Well, we went over what sections he wrote.

20 Q Right. 08:43AM

21 A So you can kind of --

22 Q Let's set that aside.

23 A Well, you can see the things that he did.

24 Like he created, with Drew Santini and my help, the
25 final database that was used in the PCA. He helped 08:43AM

1 me do some of the analysis and interpretation. I
2 usually suggested the runs to him. Sometimes he had
3 other ideas we discussed back and forth, you know,
4 particular ones we would do, and we discussed the --
5 how we would run it, the selection of how many
6 parameters, what to include in the runs, so --

08:43AM

7 Q There is a reference in your report, which is
8 marked Exhibit 1, Dr. Olsen, to something that is
9 termed EDA analyzer?

10 A Yes.

08:44AM

11 Q What is that?

12 A That's the program that Dr. Chappell has
13 written to interface between Sysstat and Excel.

14 Q Prior to this case, did that program exist?

15 A Yes.

08:44AM

16 Q Okay. Is it a proprietary program -- well,
17 strike that. Does Mr. Chappell consider that to be
18 proprietary to him?

19 A I think so. I haven't asked him that for
20 sure, but he's essentially the author of that
21 program.

08:44AM

22 Q And given that it is written by Mr. Chappell
23 and considered to be proprietary, I assume I
24 couldn't go buy it commercially; is that right?

25 A Not at this time.

08:44AM

1 Q Okay. So how would someone wanting to review
2 the results of your PCA be able to evaluate the
3 operations that occur inside of this proprietary
4 program possessed only by Mr. Chappell?

5 A There's nothing in that program besides 08:45AM
6 handing data off and doing different things that
7 either Excel or Sysstat won't do by itself. As you
8 already know, you've had some of your experts repeat
9 the calculations in Sysstat, and it's easy to do.

10 Q Well, if all of these operations and 08:45AM
11 calculations that are performed by the EDA analyzer
12 can occur in Excel or Sysstat, why did you use EDA
13 analyzer in the first instance?

14 A It's all automatically linked, so you don't
15 have to save a file in Excel and then import it to 08:45AM
16 Sysstat, and all the graphing is automatic. So it
17 just saves time.

18 Q Well, tell me exactly what it is that the EDA
19 analyzer does in connection with the principal
20 component analysis. 08:46AM

21 MR. PAGE: Object to the form.

22 A I think I just told you.

23 Q Tell me again.

24 A It runs programs back and forth.

25 Q Well, what does that mean? 08:46AM